

**U. S. DEPARTMENT OF ENERGY**

# **EM Project Management Workshop Las Vegas**

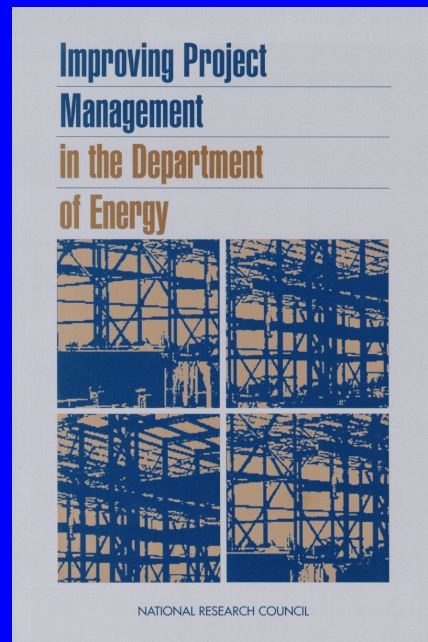
**Feb. 14-15, 2001**

**Sponsored by EM-6**

# PROJECT Management Career Development Program Task Force (PMCDP)

# Reason for Team Formation

- Department's internal studies
- General Accounting Office
- National Research Council



# NRC

## Executive Summary

### Skills, Selection, and Training of Personnel.

**Finding.** DOE's failure to develop project management skills in its personnel is a fundamental cause of poor project performance. DOE has shown little commitment to developing project management skills, as indicated by the lack of training opportunities and the absence of a project management career path. Successful organizations recognize that project management skills are an essential core competency that requires continuous training.

**Recommendation.** DOE should establish a department-wide training program for project managers. To ensure that this program is realistic, practical, and state of the art, DOE should enlist the assistance of an engineer/construction organization with a successful record of training project managers. DOE should establish criteria and standards for selecting and assigning project managers, including documentation of training, and should require that all project managers be trained and certified. DOE should also require that all contractors' project managers be experienced, trained, and qualified in project management appropriate to the project.

# PMCDP Charter

Feb. 6. 2001. 5:20PM

PCSD

No. 3711 P. 1



## The Deputy Secretary of Energy

Washington, DC 20585

January 17, 2001

### MEMORANDUM FOR THE HEADS OF ALL DEPARTMENTAL ELEMENTS

FROM: T.J. GLAUTHIER

SUBJECT: PROJECT MANAGEMENT CAREER DEVELOPMENT PROGRAM (PMCDP)

In my memorandum dated June 25, 1999, I outlined several elements of the Department's Project Management Reform Initiative. This initiative was developed partially in response to the National Research Council's (NRC's) report *Improving Project Management in the Department of Energy*. Several of the NRC's recommendations pertained directly to the professional development of DOE's Federal Project Managers:

- establish a department-wide training program for project managers;
- establish criteria and standards for selecting and assigning project managers;
- require all project managers to be trained and certified.

In my June 25, 1999 memorandum, I directed the Office of the Chief Financial Officer (CFO) to "Develop a Long Term Program for Institutional Capacity Building" and to develop additional guidance for me in early October, 2000. The CFO's Office of Engineering and Construction Management (OECM) has developed the guidance, and I direct that the following actions be taken:

- 1) The OECM will lead a two-year effort to develop and implement the PMCDP.
- 2) The Office of Management and Administration will continue to provide procurement and other administrative support to the OECM and the Task Force.
- 3) The Lead Program Secretarial Offices (LPSOs) will continue their support of the PMCDP by providing Headquarters and Field personnel on a rotational basis to serve on the two-year Task Force.
- 4) A \$1.4 million budget for this effort has been provided in FY 2001 appropriations and a follow-on request of \$1.4 million will be included in the FY 2002 budget.
- 5) OECM will complete the draft Career Development Program to include the project manager's knowledge, skills, abilities and training requirements; a PM career development tracking system; and a project manager certification program by December 1, 2001.
- 6) OECM will manage the PMCDP effort such that the work of the Task Force is completed by December 1, 2002.
- 7) The Office of Procurement and Assistance Management, through the Acquisition Career Development Program Office, will partner with the OECM in structuring and identifying opportunities for rotational assignments with industry, as appropriate, to obtain project management experience as part of the PMCDP.
- 8) Upon completion of the PMCDP module, the OECM will add the PMCDP Module to DOE Order 361.1, Acquisition Career Development Program, as a component of the DOE acquisition workforce program.

This effort is one of the key elements to improving DOE's ability to deliver complex projects within budget, on schedule, and meeting all technical requirements. In combination with the other improvements outlined in my June 25, 1999 memorandum, we are taking significant steps forward in improving DOE's ability to manage construction projects within DOE.

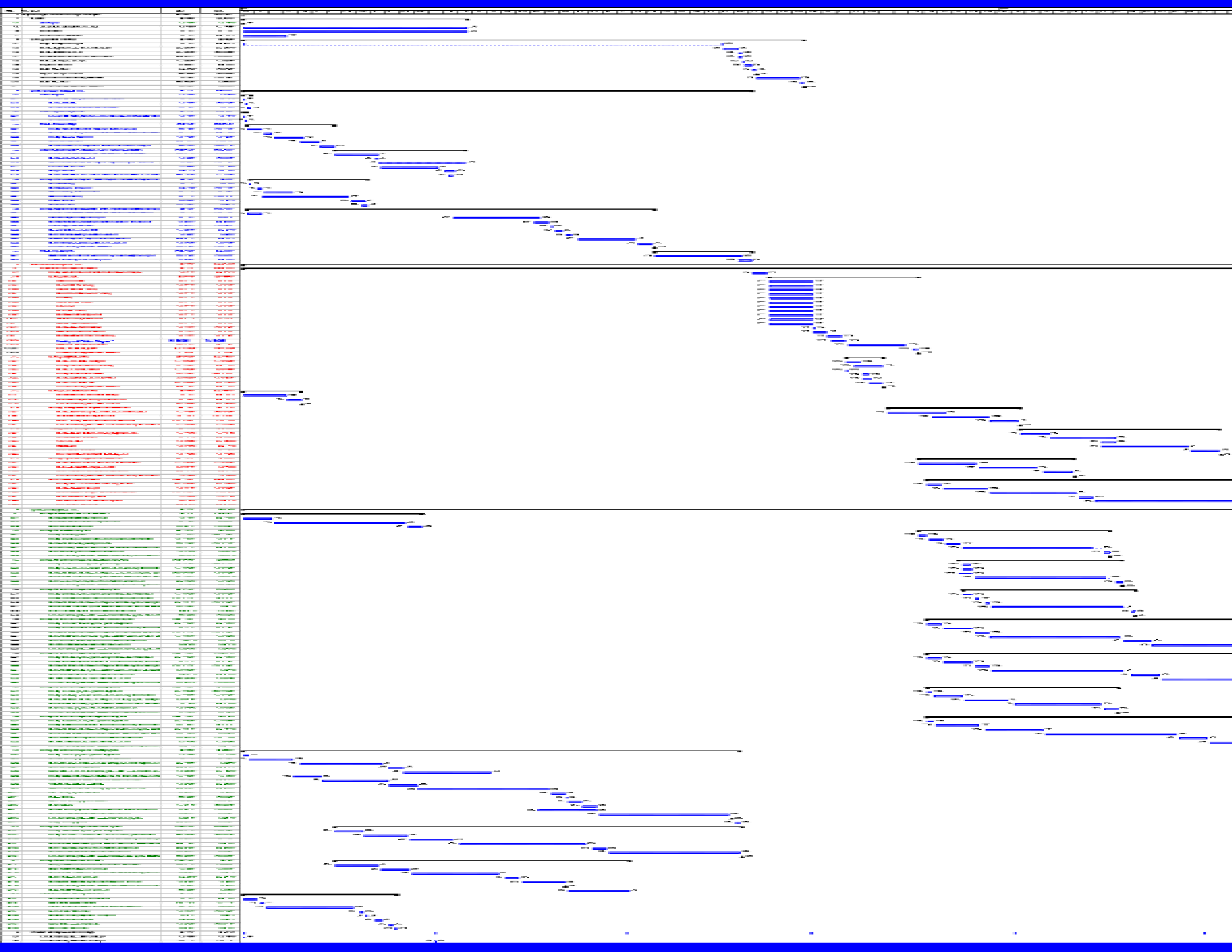
#### CONCURRENCE:

CR-80	CR-80	CR-1
D. Klasse	C. Gill	T. Palmieri
9/24/00	9/24/00	9/ /00

MA-1  
1/5/01

# PMCDP Milestones

- 5) OECM will complete the draft Career Development Program to include the project manager's knowledge, skills, abilities and training requirements; a PM career development tracking system; and a project manager certification program by December 1, 2001.
- 6) OECM will manage the PMCDP effort such that the working of the Task Force is completed by December 1, 2002.



# TASK FORCE TEAMS

## Needs, Inventory, & Support Team

WBS	Task Name	Start	Finish	2001
<b>3</b>	<b>Needs, Inventory, &amp; Support Team</b>	<b>Tue 1/2/01</b>	<b>Mon 9/3/01</b>	12/8
3.1	Define "Project"	Tue 1/2/01	Fri 1/5/01	
3.2	Define Project Management	Tue 1/2/01	Wed 1/3/01	
3.3	Perform Benchmarking	Wed 1/3/01	Wed 2/14/01	
3.4	Define Project Manager's Functions, Roles, and Responsibilities	Wed 2/14/01	Wed 4/18/01	
3.4.1	Examine PMI, NRC, USACOE, NAVFAC, DoD, and TQP Definitions	Wed 2/14/01	Wed 3/7/01	
3.4.2	Develop Interview Instrument	Tue 3/6/01	Wed 3/7/01	
3.4.3	Conduct Interviews with DOE Program/Project Managers - HQ & Field	Thu 3/8/01	Wed 4/18/01	
3.4.4	Examine Site Manuals	Thu 3/8/01	Thu 4/5/01	
3.4.5	Analyze Results	Mon 4/9/01	Fri 4/13/01	
<b>3.4.6</b>	<b>Develop Definitions of Functions, Roles, Responsibilities, &amp; Auth</b>	<b>Wed 4/11/01</b>	<b>Thu 4/12/01</b>	
3.5	Develop Lists of Current Projects, Future Projects, and Current Projects	Thu 1/4/01	Fri 3/2/01	
3.6	Develop Project Manager Knowledge, Skills, Experience Requirements	Thu 1/4/01	Wed 7/18/01	
3.7	Perform Gap Analysis	Wed 7/18/01	Mon 9/3/01	

WBS	Task Name	Start	Finish	2001	
				12/31	1/7
<b>4</b>	<b>Professional Development Team</b>	<b>Tue 1/2/01</b>	<b>Mon 5/13/02</b>		
<b>4.1</b>	<b>Design Career Development Program</b>	<b>Tue 1/2/01</b>	<b>Mon 5/13/02</b>		
4.1.1	Identify potential elements of Career Development Program	Tue 9/4/01	Mon 9/10/01		
<b>4.1.2</b>	<b>Develop Elements</b>	<b>Tue 9/11/01</b>	<b>Thu 11/22/01</b>		
4.1.2.1	Formal education	Tue 9/11/01	Tue 10/2/01		
4.1.2.2	General DOE PM training	Tue 9/11/01	Tue 10/2/01		
4.1.2.3	Program-Specific Training	Tue 9/11/01	Tue 10/2/01		
4.1.2.4	Other Federal Government Training	Tue 9/11/01	Tue 10/2/01		
4.1.2.5	Mentoring	Tue 9/11/01	Tue 10/2/01		
4.1.2.6	Private Sector Training	Tue 9/11/01	Tue 10/2/01		
4.1.2.7	Internships	Tue 9/11/01	Tue 10/2/01		
4.1.2.8	On-the-job Training	Tue 9/11/01	Tue 10/2/01		
4.1.2.9	Developmental Assignments	Tue 9/11/01	Tue 10/2/01		
4.1.2.10	Conferences, Symposia, etc.	Tue 9/11/01	Tue 10/2/01		
4.1.2.11	Specific Job Experiences	Tue 9/11/01	Tue 10/2/01		
4.1.2.12	Develop Down-Select Criteria	Tue 10/2/01	Wed 10/3/01		
4.1.2.13	Down-Select Elements/Sources	Tue 10/2/01	Tue 10/9/01		
4.1.2.14	Develop Alternate Paths/Equivalency	Tue 10/9/01	Tue 10/16/01		
4.1.2.15	<b>Develop draft "Maturo Diagram"</b>	<b>Fri 10/12/01</b>	<b>Thu 10/18/01</b>		
4.1.2.16	Coordinate with HQ, Field, & OPM	Fri 10/19/01	Fri 11/16/01		
4.1.2.17	<b>Revise "Maturo Diagram"</b>	<b>Mon 11/19/01</b>	<b>Thu 11/22/01</b>		
4.1.2.18	<b>Executive Steering Committee Approval</b>	<b>Thu 11/22/01</b>	<b>Thu 11/22/01</b>		
<b>4.1.3</b>	<b>Develop Acquisition Plan</b>	<b>Thu 10/18/01</b>	<b>Mon 11/5/01</b>		
<b>4.1.4</b>	<b>Develop Communications Plan</b>	<b>Tue 1/2/01</b>	<b>Mon 1/29/01</b>		
<b>4.1.5</b>	<b>Develop Training Course Requirements Documents</b>	<b>Thu 11/8/01</b>	<b>Thu 1/10/02</b>		
<b>4.1.6</b>	<b>Training Course Development</b>	<b>Thu 1/10/02</b>	<b>Tue 4/16/02</b>		
<b>4.1.7</b>	<b>Develop Experience Requirements Documents</b>	<b>Thu 11/22/01</b>	<b>Tue 2/5/02</b>		
<b>4.1.8</b>	<b>Devise Policies/Orders/Manuals</b>	<b>Mon 11/26/01</b>	<b>Mon 5/13/02</b>		

# Operations & Integration Team

WBS	Task Name	Start	Finish	2001	
				12/31	1/7
<b>5</b>	<b>Operations &amp; Integration Team</b>	<b>Tue 1/2/01</b>	<b>Fri 6/14/02</b>		
<b>5.1</b>	<b>Develop Certification Process &amp; Procedures</b>	<b>Tue 1/2/01</b>	<b>Wed 3/28/01</b>		
<b>5.2</b>	<b>Develop PM Recruitment System</b>	<b>Thu 11/22/01</b>	<b>Fri 2/22/02</b>		
<b>5.3</b>	<b>Develop PM Career Development Announcement System</b>	<b>Wed 12/12/01</b>	<b>Thu 2/28/02</b>		
<b>5.4</b>	<b>Develop PM Career Development Selection System</b>	<b>Thu 12/13/01</b>	<b>Wed 3/6/02</b>		
<b>5.5</b>	<b>Develop PM Career Development Incentive/Rewards System</b>	<b>Mon 11/26/01</b>	<b>Fri 5/17/02</b>		
<b>5.6</b>	<b>Develop PM Career Development Retention System</b>	<b>Mon 11/26/01</b>	<b>Wed 5/22/02</b>		
<b>5.7</b>	<b>Develop PM Career Development Mentoring System</b>	<b>Mon 11/26/01</b>	<b>Tue 2/26/02</b>		
<b>5.8</b>	<b>Develop PM Career Development Outplacement System</b>	<b>Mon 11/26/01</b>	<b>Fri 6/14/02</b>		
<b>5.9</b>	<b>Develop PM Career Development Tracking System</b>	<b>Tue 1/2/01</b>	<b>Tue 8/28/01</b>		
<b>5.10</b>	<b>Develop PM Career Development Homeroom System</b>	<b>Wed 2/14/01</b>	<b>Wed 8/29/01</b>		
<b>5.11</b>	<b>Develop PMCDP Performance Measures</b>	<b>Wed 2/14/01</b>	<b>Fri 7/6/01</b>		
<b>5.12</b>	<b>Establish Executive Steering Committee</b>	<b>Tue 1/2/01</b>	<b>Fri 3/16/01</b>		

# PMCDP TEAM MEMBERS



# OBJECTIVES

- Establish a department-wide training program for project managers
- Establish criteria & standards for selecting & assigning PM's
- Require all PM's to be trained & certified

# First Step

- Define PM's Roles, Responsibilities, Knowledge, & Skills Requirements
- Benchmark

PMI

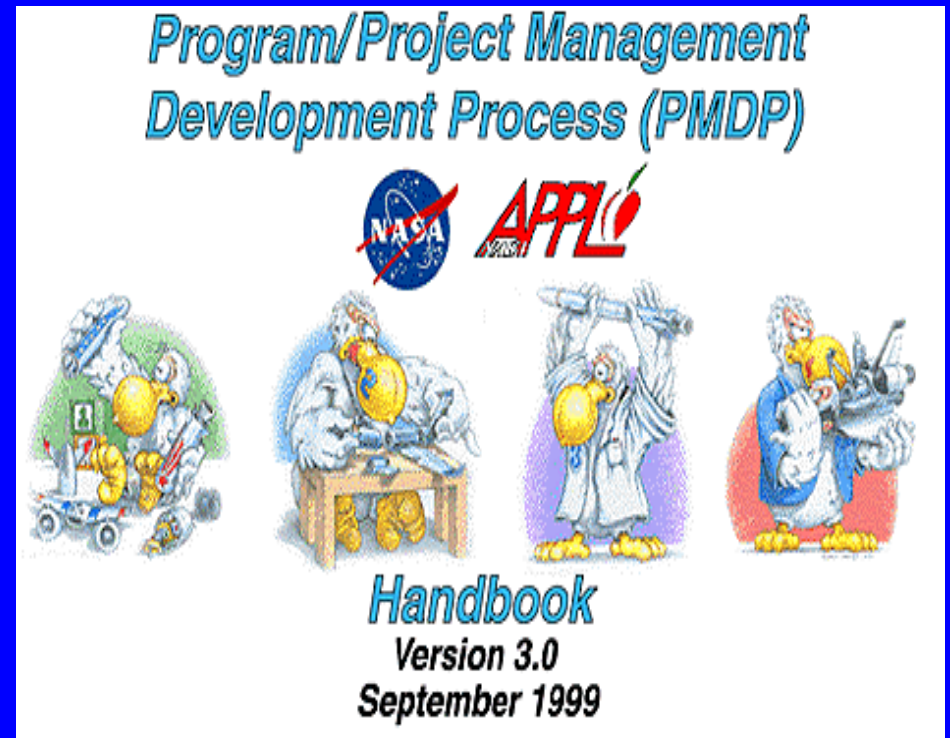
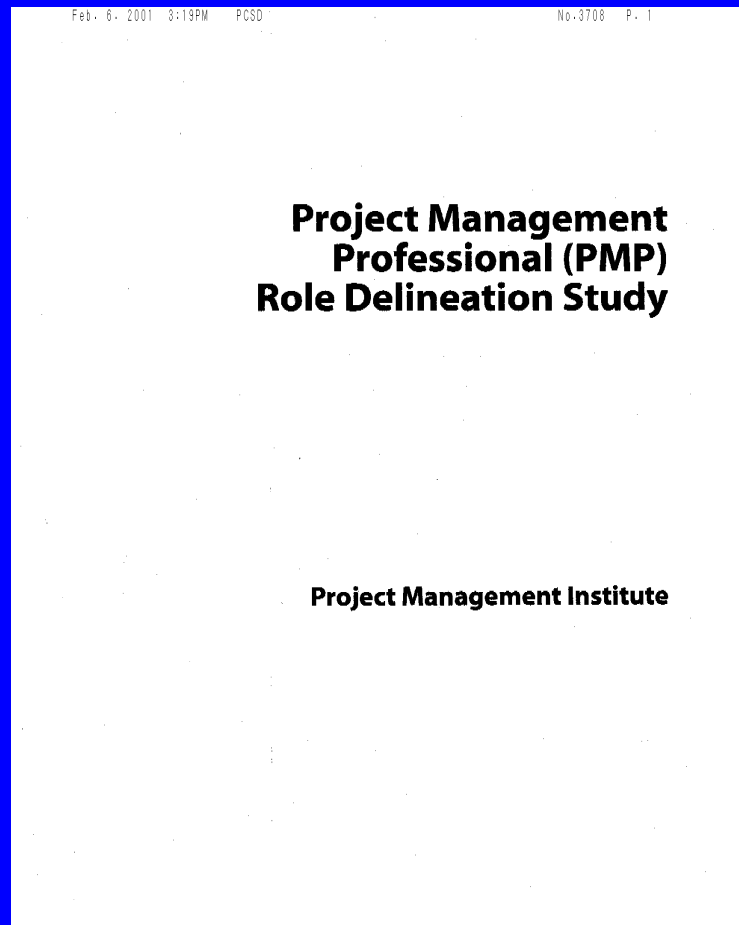
USACOE

NAVFAC

NASA

- Identify Active Project Managers throughout DOE

# Supporting PM Material



## MATURO DIAGRAM

## DOMAINS

	Leader Ship/ Team Building	Scope Mgt	Communication Mgt	Quality/Safety Mgt	Cost Mgt	Time Mgt	Risk Mgt	Contract Mgt.
<b>Letter Designation</b>	<b>L</b>	<b>S</b>	<b>C</b>	<b>Q/S</b>	<b>\$</b>	<b>T</b>	<b>R</b>	<b>K</b>

<u>Project Managers Levels</u>	<u>Project \$ Amount</u>
<b>4 Sr. Project Mgt.</b>	<b>&gt; 400 M</b>
<b>3 Sr. Project Mgt.</b>	<b>100 to 400 M</b>
<b>2 Project Mgt.</b>	<b>20 to 99 M</b>
<b>1 Project Mgt.</b>	<b>0 to 19 M</b>
<b>0 Project Mgt. Career Development Program (PMCDP)</b>	<b>0</b>
<b>Sub-Team Project Mgt. (PMIT - 1)*</b>	
<b>Project Team Member (PMIT - 2)*</b>	

\* Project Manager In Training

<u>Knowledge Levels</u>	<u>Parrot Back (Recall)</u>	<u>Apply</u>	<u>Modify &amp; Improve (Development)</u>
<b>Letter Designation</b>	<b>P</b>	<b>A</b>	<b>D</b>

# DRAFT

## DRAFT 1.3

### Project Manager Roles, Responsibilities, Knowledge, Skills, and Abilities

The first step in developing a Project Management Career Development Program is to define the roles, responsibilities, knowledge, and skills required for project managers during the various phases of the project life cycle.

The roles responsibilities, knowledge and skills are organized according to the project phases described in DOE Order 413.3 and the accompanying manual.

## CONTENTS

<b><u>Project Management General</u></b> - Roles, Responsibilities, Knowledge, and Skills required through the entire project life cycle.	Page 2
---	--------

## PROJECT PLANNING

<b><u>Pre-project</u></b>		Page 3
<b><u>Pre-Conceptual Planning</u></b>	CD-0	Page 4
<b><u>Conceptual Design</u></b>	CD-1	Page 9

## PROJECT EXECUTION

<b><u>Project Execution General</u></b> - Roles, Responsibilities, Knowledge, and Skills required throughout the Project Execution phase, i.e. design and construction.	Page 14
---	---------

<b><u>Preliminary Design</u></b>	CD-2	Page 21
<b><u>Final Design</u></b>	CD-3	Page 27
<b><u>Construction</u></b>		Page 28

## MISSION

<b><u>Acceptance</u></b>	CD-4	Page 30
--------------------------	------	---------

# Contact

Provide comments to John Phillips at

PMCDP.Phillips@hq.doe.gov

END